

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated April 1, 2008 has been received and its contents carefully reviewed.

By this Amendment, Applicants amend claims 10, 14 and 15 and new claims 17 and 18 are added. Accordingly, claims 1-18 are currently pending, of which claims 1-9 are withdrawn as the result of an earlier restriction requirement. Reexamination and reconsideration of the pending claims is respectfully requested.

In the Office Action, claims 10-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 19 and 23 of copending U.S. Patent Application No. 10/824,585 (hereinafter, 585' patent) in view of Hashimoto'920 (U.S. Publication No. 2001/0013920).

Claims 10-11 are allowable over claims 19 and 23 of 585' patent and Hashimoto '902 in that each of these claims recite a combination of elements, including, for example, "the height of the upper surface of the aligning substrate is same as that of the substrate so that the syringe is raised at the set height from the surface of the aligning substrate." Claims 19 and 23 of 585' patent and Hashimoto '902 do not specify at least this features of the claimed invention. In claims of 585' patent, an alignment mark is formed on the table and a dummy substrate. Thus, in 585' patent, the height of the upper surface of the dummy substrate is same as that of the table, not the substrate. Thus, claims 19 and 23 of 585' patent and Hashimoto '902 do not specify at least "the height of the upper surface of the aligning substrate is same as that of the substrate so that the syringe is raised at the set height from the surface of the aligning substrate."

Accordingly, the applicant respectfully requests withdrawal of the provisional rejection of claims 10 and claim 11, which depends on claim 10.

On page 2 of the Office Action, claims 10-11 and 14-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's related art (hereinafter, ARA) in view of Onuma (JP 05-3451160). Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Onuma'160 in view of Hashimoto et al. (U.S. Publication No. 2001/0013920). Claim 13 is

rejected under 35 U.S.C. §103(a) as being unpatentable over ARA in view of Onuma'160 in view of Hashimoto et al. (U.S. Publication No. 2003/0083203).

The rejection of claims 10-11 and 14-16 as being unpatentable over ARA in view of Onuma'160 is respectfully traversed and reconsideration is requested.

Claim 10 is allowable over the cited references in that claim 10 recites a combination of elements including, for example, “wherein the substrate having an flat upper surface and the height of the upper surface of the aligning substrate is same as that of the substrate so that the syringe is raised at the set height from the surface of the aligning substrate and the height of the syringe is constant over the whole area of the substrate.” None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention.

In rejecting claim 10, the Examiner acknowledges that ARA “does not explicitly teach that the aligning substrate can be attached to a side surface of the table and the table can be moved to position the syringe over the substrate from the aligning substrate to dispense the sealant.” See Office Action, lines 22-24 page 2.

The Examiner cites Onuma'160 as allegedly teaching “a method of forming a desired gap prior to forming a sealant layer on a LCD substrate. An aligning substrate 6 is used to acquire the desired gap. The nozzle can contact the aligning substrate while the LCD substrate is loaded on the table. Onuma reasonably teaches the use of a fixed aligning substrate that is not required to be loaded/unloaded on the table.” See Office Action, page 4.

As motivation for modifying the teachings of ARA with Onuma, the Examiner states, “It would have been obvious to one of ordinary skill in the art at the time of invention to have provided a fixed aligning substrate in the method of [ARA] with a reasonable expectation of success Onuma teaches that such a method of aligning is operable in the LCD deposition art.” See Office Action, lines 1-4.

Applicants respectfully disagrees the Examiner's statement. Onuma'160 merely discloses that a rod cell is disposed side of the substrate and a nozzle is contacted with the rod cell. In Onuma'160, because the surface of the substrate is not flat, height of the nozzle is different over the whole area of the substrate. On the contrary, in the claimed invention, because the surface of the substrate is flat, the height of the syringe is constant in the whole area of the

substrate. Thus, Onuma'160 does not teach or suggest at least "wherein the substrate having an flat upper surface and the height of the upper surface of the aligning substrate is same as that of the substrate so that the syringe is raised at the set height from the surface of the aligning substrate and the height of the syringe is constant over the whole area of the substrate."

Accordingly, applicant respectfully submits that claim 10 and claim 11, which depend from claim 10, are allowable over the cited references.

Claim 14 is allowable over the cited references in that claim 10 recites a combination of elements including, for example, "applying a material onto the aligning substrate attached to the table through a nozzle provided at end portions of each of the plurality of syringes to form a plurality of alignment patterns on the aligning substrate." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention.

In rejecting claim 14, the Examiner stated that the ARA "teaches that an image camera can be used to detect the alignment patterns on the aligning substrate and the position of the syringes are aligned according to the image [0016]." See Office Action page 3.

Applicants respectfully disagrees the Examiner's statement. ARA merely discloses that the alignment pattern is formed onto the substrate on the table. On the contrary, in the claimed invention, the alignment pattern is formed on the alignment substrate, not the substrate. Thus, the cited references do not teach at least "applying a material onto the aligning substrate attached to the table through a nozzle provided at end portions of each of the plurality of syringes to form a plurality of alignment patterns on the aligning substrate."

Accordingly, applicant respectfully submits that claim 14 is allowable over the cited references.

Claim 15 is allowable over the cited references in that claim 10 recites a combination of elements including, for example, "wherein the substrate having an flat upper surface and the height of the upper surface of the aligning substrate is same as that of the substrate so that the syringe is raised at the set height from the surface of the aligning substrate and the height of the syringe from the surface of the substrate is constant over the whole area of the substrate." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention.

In the Office Action, the Examiner rejects claim 15 for the same reasons as claim 14. Applicants' arguments with respect to claim 14 are equally applicable to claim 15 and Applicants respectfully submit that claim 15 and claim 16, which depend from claim 15, are allowable over the cited references for the same reasons given for claim 14 above.

The rejection of claim 12 as being unpatentable over ARA in view of Onuma'160, and further in view of Hashimoto'920 is respectfully traversed and reconsideration is requested. Claim 12 is allowable at least by virtue of the fact that it depends from claim 10, which is allowable.

The rejection of claim 13 as being unpatentable over ARA in view of Onuma'160, and further in view of Hashimoto'203 is respectfully traversed and reconsideration is requested. Claim 13 is allowable at least by virtue of the fact that it depends from claim 10, which is allowable.

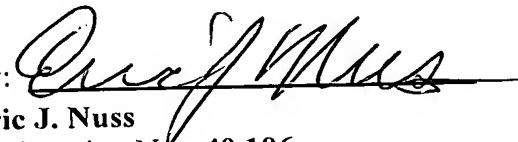
Applicants believe the application is in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: 1 July 2008

Respectfully submitted,

By:   
Eric J. Nuss  
Registration No.: 40,106  
McKenna Long & Aldridge LLP  
1900 K St. NW  
Washington, DC 20006  
Tel: 202-496-7500  
Attorney for Applicants